



GROWING SOUTH DAKOTA

A MAGAZINE BY SOUTH DAKOTA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SPRING 2012

GLOBAL GROWTH
**CREATES AGBIOSCIENCE
OPPORTUNITIES**

NEW PROGRAMS;
NEW DELIVERY
**SDSU EXTENSION
ENTERS NEW ERA**

SPOTLIGHT ON
STUDENTS
**GAINING INSIGHT
& GIVING BACK**



FROM THE DEAN: TWO-SIDED COIN



"Given the central role that food plays in human welfare and national stability, it is shocking – not to mention short-sighted and potentially dangerous – how little money is spent on agricultural research." *Bill Gates, January 24, 2012*

I grew up in a 1950's household where my brothers, sister and I were reminded nightly to clean our plates – because according to our parents, in continents and countries far away, people were starving.

The cause and effect relationship between others' plight and the cold cauliflower on my plate was a difficult concept for a little boy to grasp. But my parent's admonition served me well. I was not only sensitized to the plight of others; I was exposed to a great deal of geography.

By 1965 in countries across the globe, fully one-third of the world's population of just over 3 billion people was starving or near starvation. Each American farmer fed just 25 people. While President Johnson's 1966 *War on Hunger* certainly had an empathetic side to it, there was a pragmatic aspect as well. If something wasn't done, the stability of governments around the world was at serious risk.

From the tragedy of millions was born the Green Revolution. Research led by brilliant agricultural scientists like Norman Borlaug to increase the production of the basic foods of the world – like wheat, rice, and maize (corn) – yielded amazing results.

Today, tragically, hunger persists. But by any measure, the Green Revolution has been a great success. With a population of 7 billion people, one-eighth of the world's population is starving or near starvation; yet incredibly, each American farmer feeds 155 people.

Borlaug expressed the moral and ethical responsibility to feed the world with these words: "Food is the moral right of all who are born into this world."

Since the industrial revolution began in the 18th century prompting the migration from farms to cities, the responsibility for food production has been placed squarely on the backs of farmers – who are a shrinking minority.

And the future will bring new generations of farmers its own version of this challenge and responsibility. By roughly 2060, 10 billion people will have to be fed with food produced using less energy, water and land than is used today.

The Opportunity

The other side of this challenge then, is the great economic opportunity it will provide those prepared to meet it. As evidenced by agricultural commodity and real estate markets across America today, clearly the challenge, and its associated rewards, is with us.

Headlines boast "*Agricultural Profits Pass \$100 Billion As Farmers Have One Of Their Best Years Ever*;" "*Farm Exports Break Record in 2011*;" and "*Record Income Levels for Farm Families*."

For those of us in the business of agriculture for the past few decades, this phenomenon of optimism still takes some getting used to. But given forecasts for not only population growth, but also shifts in demographics, there are certainly strong signals that the golden age for agriculture is upon us.


The success of the historic Green Revolution was not only the result of the ingenuity and scientific brilliance of scientists like Borlaug, but also the foresight and commitment of policy makers and leaders like President Johnson, who made the tough decisions to allocate scarce and precious resources to research into food production. What a wise investment it has been.

The return on investment for every dollar invested in agricultural research and Extension in the land-grant universities of the North Central Region of the United States has been \$15 to \$25. This has benefited not only farmers, but also agricultural based businesses and communities across our state.

I am often asked what my greatest concern is. Far and away it is the current level of funding for agricultural research. At the same time that our state harvests the yield from decades of wise investment in cutting-edge agricultural research that has increased production as well as demand, we have been steadily eroding our current and future research capacity.

Currently, we are spending the equivalent of less than one-tenth of one penny from each dollar of our state's gross farm income on agricultural research. There are two great risks associated with this. First, is our moral and ethical responsibility related to feeding the world's growing population. Second, it places our farmers, ranchers, and agribusinesses at an economic disadvantage related to capturing the opportunity associated with a growing demand for food and agricultural co-products.

And now the responsibility has fallen to us. Who will be the next generation of brilliant scientists that discover the knowledge to feed the world? How will we accomplish those goals while maintaining environmental health and sustainability? How will we prepare our state to harvest the economic opportunity that is coming our way? I look forward to working on these challenges with all of you!


Barry H. Dunn, Ph.D.

GROWING SOUTH DAKOTA

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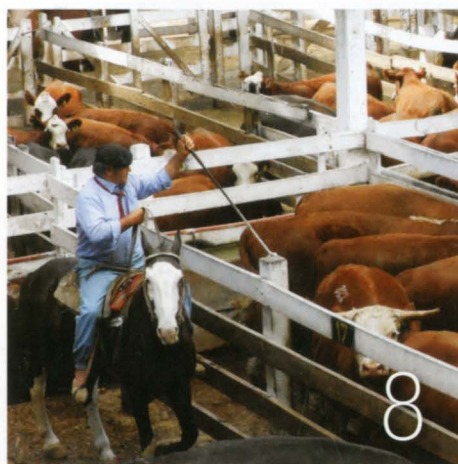
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On the Cover:

As the world's population surges past seven billion people, the question for the future is: Will food and energy production be able to keep up? The answer appears to lie in the hands of agriculturalists. Read more beginning on page 2.

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CONTENTS

- 2 POWERFUL POTENTIAL**
Growing Global Population Spurs Need For Agbioscience
- 4 SPRING COLLEGE NEWS**
- 6 ENHANCED EDUCATION**
Students Complement Coursework With Extra-Curricular Opportunities
- 8 GAINING GLOBAL PERSPECTIVE**
SDSU Delegation Visits Argentina
- 9 CREATIVE COLLABORATION**
Students, Landowners & Industry Professionals Pair Up For A Positive Experience
- 10 WONDROUS WHEAT**
New Research Agreement & Wheat Varieties Announced
- 12 HERE & THERE**
- 14 NEW ERA UNDERWAY**
SDSU Extension Re-Energizes Programs, Delivery
- 16 iGROW CONTINUES TO GROW**
- 18 FOCUSED ON THE FUTURE**
Field Specialists Strive To Serve Changing Landowner Needs
- 19 CONNECTING WITH COMMUNITIES**
SDSU Extension Facilitates Brainstorming & Business Planning



POWERFUL POTENTIAL

Growing Global Population
Spurs Need For Agbioscience

“SEVEN BILLION AND COUNTING.” In reference to the world’s burgeoning population, that’s a headline that’s quite commonplace these days. And, the concern that goes with it is this: If the projection is for another 2 billion people to be added to the planet by 2050, will food and energy production be able to keep up?

Given that the world’s farmers and ranchers will be working with the same – or potentially even less – land mass and water supply, it’s a concern worth pondering. But it’s not an insurmountable one, believes Daniel Scholl, Director of the South Dakota Agricultural Experiment Station.

Rather, Scholl says, “There’s only one solution and that is to produce more efficiently.”

To achieve that objective, he says the world will need to rely in part on biotechnology. Scholl explains that biotechnology allows agriculture to get more useful products out of the same amount of inputs. An example would be finding a trait that one plant species or variety does well – such as drought tolerance – and transferring that to plants that have high yield potential.

As the world addresses this global issue, Scholl sees SDSU having a responsibility – and taking a leadership role – in determining how to utilize agricultural resources most effectively with innovative use of biotechnology.

Scholl says, “SDSU’s potential role is exciting.”

Productivity & Exports

Already South Dakota and 11 other Midwestern states in the north central region are doing a yeoman’s job of helping feed the world. Scholl refers to this region as “America’s ag-export engine,” and reports that on only 21% of the U.S. land, ag producers in these states are producing 45% of US agricultural exports representing a variety of commodities. (*See diagram for details.*)

Of this Scholl says, “South Dakota is already in a strong position; now it’s a matter of fine-tuning our ag production and research to grow that potential even more.” He emphasizes that funding is a key enabler to that effort.

Scholl cites a 2011 Battelle research report titled *Power & Promise* which indicates: “Agbiosciences are critically important to tackling many of the most pressing issues facing the nation and the globe – yet agbiosciences receive the least amount of funding attention in the national R&D funding scheme.”

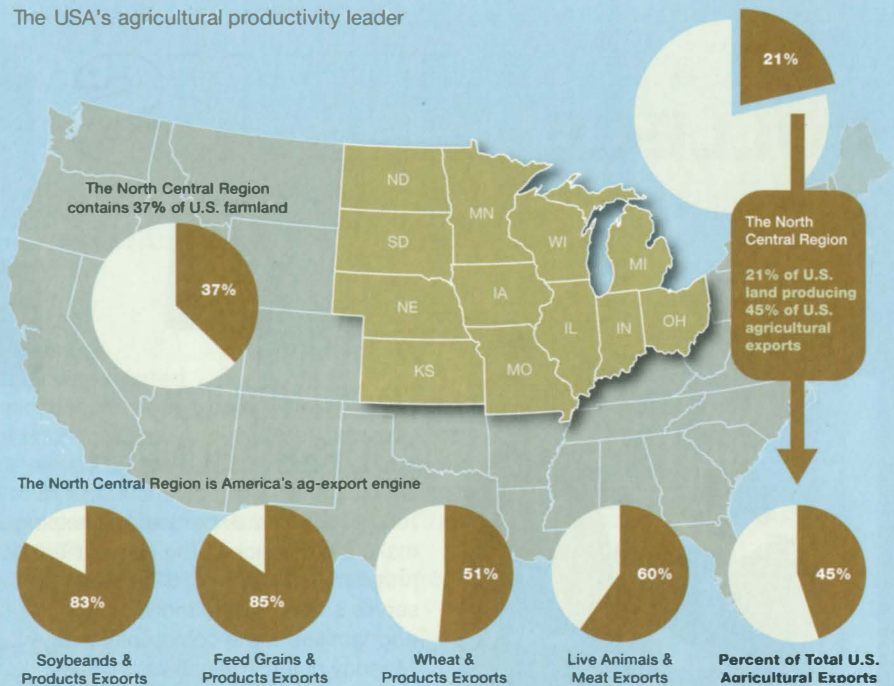
Scholl notes that with a renewed commitment to agbioscience research there is the opportunity to expand the contributions by South Dakota agriculture and the region to help ease the global



The North Central Region

The USA's agricultural productivity leader

The North Central Region of 12 states comprises 21% of U.S. land area



food and energy concerns; it could also provide a prosperous influx to the South Dakota economy.

Scholl shares findings from that same Battelle research report which indicates "agriculture research and extension are core drivers of future economic growth potential." The report cites a 15 to 1 and 25 to 1 return on investment for state resources spent on ag research and infrastructure.

Scholl says the message is clear: "A massive international economy will grow up around meeting the world's growing food need and bioenergy needs." He says South Dakota must determine if it will be a bystander or a beneficiary.

Working Together

In his role with South Dakota Agricultural Experiment Station (AES), Scholl is working to bring producers, researchers, commodity leaders and the South Dakota public together so the opportunities ahead for agriculture can be realized.

He shares that the South Dakota AES is focused on three core components to do so:

- Listening to and understanding stakeholders' needs.
- Stimulating and promoting AES scientists.
- Managing AES resources and processes for efficiency and effectiveness.

Scholl says, "We are in a position of responsibility to ask good scientific questions that will lead to the knowledge necessary to continue to increase our state's ag production."

He acknowledges that SDSU research will not be the only channel by which farmers participate in ag technology available in the future. "There will be commercial channels and other universities," Scholl concedes. But he emphasizes that South Dakota AES is the only place where researchers will be working with South Dakota conditions.

"Local research enables people to apply the technologies that will be coming from SDSU, other universities and commercial channels," Scholl says.

And, that local research very well could make a world of difference to enhancing the quality of life for South Dakotans – as well as helping feed 9 billion people in 2050.



SPRING COLLEGE NEWS



WORKING TOGETHER TO ADDRESS HUNGER

Ten gallons of milk per week is helping make a difference to the Harvest Table program in Brookings, SD, which serves a free meal to individuals and families in the community every Monday night. The milk is donated weekly during the SDSU school year by the Dairy Science Department.

Harvest Table began offering the weekly meal to individuals in need in 2000, and SDSU has donated milk

to the program since the beginning. Today, Harvest Table serves 150 to 200 guests each Monday, and Harvest Table program coordinator Vonda Kirkham (pictured above), says the meals would not be possible without the support of volunteers and donations.

"We are able to provide this service because of donations," she explains, and adds, "I think it's very important that these families – especially those with kids – have milk. So we are very pleased that SDSU is able to help."

Dairy Science Department head Vikram Mistry credits former dairy plant manager Howard Bonnemann and current manager Jacob Anderson for facilitating the donations over the last 12 years. "As a university and a department we are part of the community; we contribute to Harvest Table in the spirit of helping others and being a good citizen."

On a statewide effort, SDSU Extension has partnered with local charities and governmental agencies to establish **Partners Against Hunger**, a nonprofit organization whose mission is: "Strengthening and uniting communities that all may be fed."

Partners Against Hunger began when USDA Rural Development Sec. Dallas Tonsager met with Rev. David Zellmer, Bishop of the South Dakota Synod, Evangelical Lutheran Church in America, regarding food ministry and feeding the hungry. After this meeting, representatives from state and federal agencies, three denominations, food pantry and feeding ministries and SDSU Extension were invited to brainstorm ways to fight hunger in South Dakota.

One of Partners Against Hunger's bold goals is to make healthy food accessible to everyone in South Dakota by 2015.

"SDSU Extension is excited to be a partner with this group in order to work with people in South Dakota to reduce hunger and increase food security for all individuals, families, and communities. This outreach cannot be accomplished alone, and it is wonderful to see all of these organizations come together to end hunger," says Suzanne Stluka, SDSU Extension Food and Families Program Director.



IN RAPID CITY: UNIVERSITY CENTER OFFERS AG COURSES NEXT FALL

Earning an ag-related degree from SDSU is now one step closer for prospective students in the Rapid City area, thanks to courses offered through the University Center.

Located on the eastern edge of Rapid City, the Center offers college courses through SDSU as well as South Dakota's other public universities. This format provides students in the western region of the state the opportunity to take introductory agriculture courses along with general education courses to begin their educational careers closer to home. It also accommodates individuals who may be working in local communities while pursuing their degree.

The introductory courses would allow students to explore a major in Animal Science, Agronomy, Ag Business, Range Science, Ag Education or General Agriculture. Students could potentially take two years of courses for their bachelor's in Rapid City or online before transferring to SDSU's main campus in Brookings to complete their degree.

A number of general education courses will be offered at UC-RC or by Internet in Fall 2012, along with introductory agricultural courses including Introduction to Animal Science.

For more information or to enroll visit www.ucrapidcity.org.

THINK TANK SESSION HELD WITH NEWLY CREATED COLLEGE ADVISORY COUNCIL

More than 40 stakeholders from across the state gathered on the SDSU campus in mid-December to give – and gain – input about current programs and activities in the College of Ag and Biological Sciences.

The newly created College Advisory Council was initiated by Dean Barry Dunn to enhance the communication network among partners and constituents. Dunn explains that in forming the council, he sought nominations from leaders across the state. The members represent a wide variety of interests, audiences and fields served by the College.

Of the new effort, Dunn says, "I will look to this outstanding group of individuals to not only provide feedback on the work being done by the College, but also to explore challenges we face. The council will also be a sounding board for new ideas and will help us evaluate new opportunities."

Dunn intends for this council to meet twice per year. Their next gathering will be in Pierre in June. Those named to the SDSU Ag & Bio College Advisory Council include:

Keith Alverson, Chester
Matthew Bainbridge, Ethan
Lewis Bainbridge, Ethan
David Barz, Tripp
Pete Bauman, Clear Lake
Chad Blair, Vale
John Bode, Orient
Walt Bones, Pierre
Ron Brownotter, Bullhead
Gary Cammack, Union Center
Patty DeZeeuw, Elkton
Rick Doud, Midland
Gary Duffy, Oldham
Craig Dybedahl, Colton
Bill Even, Humboldt
Jim Faulstich, Highmore
Matthew Field, Lake Preston
Brenda Forman, Pierre
Ronald Frankenstein, Redfield

Nate Franzen, Yankton
Randy Frederick, Hayti
David Fremark, St. Lawrence
Travis Gebhart, Meadow
Jay Gilbertson, Brookings
Clair Gustafson, Bryant
Paula Hamilton, Hitchcock
Wim Hammink, Bruce
Michael Jaspers, Sioux Falls
Myron Johnson, Watertown
Roxanne Knock, Tulare
Jeff Lakner, Wessington
Elizabeth Larkin, Sioux Falls
Laird Larson, Clark
Mark Leddy, Milbank
Mark Luecke, Sioux Falls
Mary Miller, Leola
Codi Mills, Nisland
Luke Minion, Pipestone, MN

Dustin Oedekoven, Pierre
Steve Rommereim, Alcester
Carl Sanders, Oral
Bill Slovek, Philip
Steve Smith, Washington, DC
Jennifer Stalley, Pierre
Warren Symens, Amherst
David Uttecht, Alpena
Scott VanderWal, Volga
Tom Varilek, Geddes
Ross Varilek, Geddes
Sandi Vojta, Hill City
Cody Volmer, Presho
Becky Walth, Glenham
Paul Welbig, Garretson
Mark West, Sioux Falls
Myron Williams, Wall
Tom Young, Onida



FACULTY NEWS



> SDSU College of Agriculture and Biological Sciences dean **BARRY DUNN** was named Most Valuable Player in Agriculture by the South Dakota Corn Growers Association in January. The MVP award is given to an individual or organization that has helped achieve common goals and create advancements in the agricultural industry. The award

was presented Jan. 7 during the SDCGA's 26th annual meeting in Sioux Falls. More than 1,000 farmers, industry partners and legislators attended the event.

> **DAVID CASPER** has joined the Dairy Science Department as Assistant Professor of Dairy Science. In addition to teaching, he will initiate a research program focusing on the efficiency and profitability of nutrient digestion and utilization by dairy cattle using different rations.

> **ELAINE GRINGS** joined the Animal Science Department Feb. 1 as Cow/Calf Management and Production Specialist. She most recently lived in Tucson, AZ, where she was a consultant for the International Livestock Research Institute.

> **LORA PERKINS** will join the Natural Resource Management Department as an Assistant Professor in July. She will focus on teaching and research in the areas of range ecology, soil science, and invasion biology.

ENHANCED EDUCATION

Students Complement Coursework With
Extra-Curricular Opportunities



“**T**here’s a club or organization for every interest,” says **Tyler Peterson** (pictured above left), a sophomore at SDSU majoring in agronomy.

And Peterson is excited for the opportunities they afford. As a freshman at SDSU he applied for – and was selected – as an AgBio Ambassador to represent the college at various events and to visit high schools in the region. He has also joined Alpha Gamma Rho fraternity and participated in the SDSU Crops Judging Team this past fall.

The Alpena, SD, native is used to getting involved with organizations – he credits his involvement in 4-H and FFA for spurring his interest in SDSU and agronomy.

Why does he feel it’s important to be a part of these extra activities? Peterson knows his coursework in the classroom is important, but he also knows the experience he’s gaining as an ambassador and through the judging team is broadening his horizons.

He’s traveled to Kansas City, Chicago and Indianapolis via his SDSU affiliations; he’s made new friends and networked with prospective employers in his career field;

and he’s gained skills – and memories – that he’ll carry with him for a lifetime.

Peterson is already planning to put some of those skills to work this summer. He has a crop consulting internship lined up near his hometown, and he knows his crops judging expertise will come in handy.

Similar Sentiments

Wall, SD, native **Emily Helms** (pictured above center) has also maximized her opportunities to get involved in the various offerings at SDSU. The senior range science and agronomy double major recites a lengthy list of activities in addition to her classroom studies.

They include two years overseeing the agronomy contest at Little I, two years on the Crops Judging Team, AgBio Prexy Council, and AgBio Ambassador. As a member of SDSU’s Range Judging Team, she traveled to Spokane, WA, for a contest in January, and as a member of SDSU’s Soils Judging Team she traveled to West Virginia in March.

Helms says she enjoys the opportunity to travel and meet new people, but she also recognizes she has gained even more from her extra-curricular investments.

“These activities have taught me a lot about teamwork, decision making and time management,” she says.

She adds, “You learn to prioritize, and you don’t get a lot of sleep. I have learned to balance being a good student and getting things done.”

Colton Buus (pictured above right), a senior animal science major from Lennox, SD, has learned the valuable skill of time management as well. As this year’s Little I manager, Buus is balancing his coursework with the very real job of directing 134 staff members for the event on campus March 30-31.

Buus was first introduced to the Little I event when he competed in its contests as a high school FFA student. When he arrived at SDSU as a freshman, he joined the Little I staff – as well as Block & Bridle Club and Collegiate FFA – and has been honing his leadership and communication skills ever since. Buus has also found time for intramural sports, campus ministry activities and is involved with a campus mentorship program as well as the SDSU Livestock Judging Team.

Buus says all of these activities have offered an opportunity for making friends and building his character. “I believe

"These activities have taught me a lot about teamwork, decision making and time management."

Emily Helms, SDSU agronomy and range science double major

having a well-rounded resume shows potential employers that you can manage various tasks in addition to classes," Buus concludes.

Real World Perspective

Clint Rusk, head of the Animal Science Department at SDSU, and Don Marshall, director of academic programs for SDSU's College of Agriculture and Biological Sciences, also attest to the value students gain from their involvement in campus clubs and organizations.

Based on surveys of the companies who come to SDSU and other universities to participate in Career Fairs, they report that two of the top criteria employers are looking for are students who can make decisions and who can verbally defend those decisions.

"I believe one of the best programs we have available to develop these traits are judging teams," says Rusk, who himself has been a livestock judging team member and coach – and now judges shows throughout the country.

Rusk adds, "Judging team participation helps students learn to make decisions based on certain criteria in a set amount of time. Students then have to defend their decisions to official judges either orally or in written form. Eventually, each of our graduates will have to sell themselves to a potential employer, even if it's convincing mom or dad that they should be allowed to come home to the family operation."

Rusk says he takes pride in judging teams at SDSU because of the way the coaches are focused on helping students develop decision making and

communication skills – skills that they will use for the rest of their lives.

Marshall notes that participation in extra-curricular clubs and organizations can benefit students in several ways. "Some provide opportunities to apply classroom principals in a hands-on or real-life environment, and may provide networking opportunities leading to internships or employment upon graduation. Others may enhance development of professional or leadership skills," says Marshall.

He adds, "As a bonus, many such activities are simply fun and provide a way to get to know other students and faculty outside the classroom."

Peterson also likes the fact that being involved provides the opportunity to pass some of his knowledge and experience on to underclassmen – particularly high school students weighing their college options.

In his role as an AgBio Ambassador, Peterson says, "I like the idea of being able to make an impact on a younger person's life and share the opportunities SDSU has to offer them."

SDSU SUCCESS

Judging teams in SDSU's College of Agriculture & Biological Sciences have a long-standing history of earning awards and accolades. And the experiences also instill in students communication and decision making skills along with the opportunity to travel and network within their career field. Some of the recent successes earned by SDSU students include:

SDSU's Wool Judging Team earned champion honors at the National Western Stock Show in Denver, CO, on Jan. 13. This is only the third time SDSU has won the Wool Judging Contest at the National Western Stock Show.

Team members included: Tyler Grussing, Kimball, SD; Brandi Raatz, Pipestone, MN; Vince Ries, Aurora Center, SD.; Kate Anderson, Jackson, MN; Laura Schoneman, Bingham Lake, MN; Jacob Englin of Bruce, SD; and Amanda Kammerer of Rapid City, SD.

The **SDSU Crops Judging Team** traveled the week of Nov. 13-20 to compete in two national collegiate crops contests. The SDSU team took third place at both the Kansas City Board of Trade Collegiate Crops Contest and at the Chicago Board of Trade Collegiate Crops Contest.

Team members were Jenna Braun, Salix, IA; Cole Carda, Chelsea, SD; Julie Fodness, Hardwick, MN; Brent Larson, Dawson, MN; Tyler Peterson, Alpena, SD; Derek Zenk, Webster, SD.

On Nov. 5 the **SDSU Collegiate Dairy Products Judging Team** placed first in All Products during the 90th Collegiate Dairy Products Evaluation Contest, held at the Kraft Technology Center in Glenview, IL. A total of 40 undergraduate and graduate contestants from 11 universities in the U.S. and Canada participated in the contest.

This was the fourth year in a row that the Dairy Products Judging Team won the National Championship. SDSU team members were Luke Rensink, Freeman, SD; Justin Ochsner, New London, MN; Angie Klaers, Wabasso, MN; and Som Khanal, Putalisadak Kathmandu, Nepal.

SDSU also has a strong contingent of students involved in dairy cattle, livestock, meats, range, soil and horticulture judging events.

GAINING GLOBAL PERSPECTIVE

SDSU delegation visits Argentina

Buenos Aires, Santa Rosa, Pergamino and Rosario were on the itinerary for 20 SDSU students and College of Ag and Biological Sciences faculty Michael Gonda, Jose Gonzalez and Julie Walker who traveled to Argentina in early January.

The students – representing majors in animal science, agronomy, ag economics, ag business and general agriculture – were enrolled in ABS 482 an international experience course designed to provide a firsthand view of the culture and agricultural industry of another country. The course has been offered for several years and is open to all majors within the college. Students pay their own expenses for the trip.

The SDSU delegation, along with an interpreter, left South Dakota on January 1 and returned January 16. Highlights during their international travels included three farm/ranch visits, as well as tours of Liniers Cattle Market, the Rosario Board of Trade, an embryo transfer center and a bio-diesel plant. Cultural activities included both a gaucho and tango show.

Walker, an Extension beef specialist at SDSU, explains that the trip is designed to give students an opportunity to see the similarities and differences between Argentinean and American agricultural practices. To prepare for the experience, students studied Argentina's economy and ag industry during the fall semester.

During their travels, the students also gained insight into traveling internationally, as well as an appreciation for South American culture and history, says Walker.

Opportunity Of A Lifetime

Senior agronomy major Walter Kummerfeld, a native of Sutherland, IA, chose to participate in the international course because of the good reports he had heard from other students who have traveled with the class.

Kummerfeld was also interested in seeing firsthand the South American farming practices, because he notes, "a big part of our markets are influenced by their crops." Kummerfeld was surprised to see that they use smaller equipment and have very little government support.

Student Rachael Dahlman was also struck by the challenges farmers in Argentina face with regard to their government. "Their president is not an advocate for agriculture, and farmers face a lot of taxes which make it difficult for them to make a profit," says the ag economics senior from Cokato, MN.

Dahlman says she had always wanted to study abroad, and this course gave her the opportunity to gain that experience.

She was impressed with how open and welcoming the Argentine farmers were in making the students feel welcome and in sharing information about their industry. "Definitely a highlight of the trip was the people," Dahlman says.

Kummerfeld and Dahlman say they were also surprised by how similar the Argentine landscape looked to South Dakota, Minnesota and Iowa. "It is very

flat with cropland everywhere. If the road signs weren't in Spanish, you would have thought you were in South Dakota," Dahlman says.

Both Dahlman and Kummerfeld are preparing to graduate in May and are glad to be taking this international experience with them into their career fields. To other students, Kummerfeld offers this advice, "Take the opportunity. It was a very personal, well-organized trip. It's a once in a lifetime experience, and a lot of fun."

The ABS 482 International Experience course will be offered in the future.

For more information contact Julie Walker at 605-688-5458 or Stacy Scramlin at 605-688-5451.

Above: Argentine farmers use smaller equipment on a landscape similar to South Dakota; SDSU students Adam MacHolda (left) and Justin Krell discuss the Argentine corn crop; and a gaucho works the pens at the Liniers Cattle Market.



CREATIVE COLLABORATION

Students, Landowners & Industry Professionals Pair Up For A Positive Experience



How can students gain practical experience in wildlife and fisheries habitat management? That was the challenge presented to wildlife ecologist Susan Rupp when she joined the SDSU faculty six years ago and was asked to create a course that addressed that need.

Rupp collaborated with the South Dakota Game, Fish & Parks, other natural resource agencies and non-profit conservation organizations and the "Habitat Conservation and Restoration" course – offered in the Department of Natural Resources Management – evolved.

Rupp designed the course to provide "experiential learning," in which student teams are assigned a real landowner whom they communicate with and create a habitat management plan for. Additionally, students have the opportunity to be paired with a mentor from within the wildlife and fisheries industry to gain insight from during the course.

The spring-only course is being offered for the fourth time this semester, and Rupp reports that feedback from students, landowners and mentors has been overwhelmingly positive. So much so, that word is getting around. Presently, 64

students are on the roster for the class, and Rupp has been approached by landowners willing to have the students design a plan for them.

Benefit To All

Rupp believes the course's popularity is due to the real-world experience it provides. She says, "It gives students the experience in planning how to manage the landscape with specific species in mind." Grazing management, grassland plantings, establishment of shelterbelts and wetland issues are examples of some of the topics addressed.

Landowners benefit because they are able to consider several planning options created to meet their management objectives.

And, the course provides a network opportunity for students and professionals. "Students can make career connections and learn more about their chosen field, and natural resource agency professionals are utilizing it as a way to scope out future employees," says Rupp.

Moreover, Rupp points out that with the numerous landowners and natural resource and non-profit partners involved, the feedback provided helps to bridge the

potential disconnect between academia and the skills graduates need to have before they enter their career field.

As the course expands, Rupp is continuing to fine-tune the experience. This semester she has students, landowners and mentors using Wikispaces, a secure online site, to facilitate communication and interaction. Skype or webcams for face-to-face conversations via the Internet may also be used in the future.

Rupp concludes, "My motto for the course is: Real, relevant and relational. By dynamically interacting with real landowners and professionals on relevant habitat management issues faced today, we can train our students how to be better wildlife managers tomorrow."

Editor's Note: During the semester, efforts are also made for students to attend the South Dakota Chapter of The Wildlife Society meeting to meet their mentors in person. For more information about the course contact Susan.Rupp@sdstate.edu or call (605)688-4779.

Above: State Waterfowl Biologist Rocco Murano mentors a SDSU student enrolled in the Habitat Conservation and Restoration course.

STUDENT SHOWCASE IS APRIL 28

Student teams in the Habitat Conservation and Restoration course will present their management plans to landowners and the public at a "Student Showcase" on April 28. These presentations are the students' final exam for the course and provide an opportunity for them to share their work and explain their recommendations.

The Student Showcase will be held in the Northern Plains BioStress Laboratory Room 103 from 9 a.m. to 4 p.m.

WONDROUS WHEAT

New Research Agreement & Wheat Varieties Announced



Wheat has bright future ahead in South Dakota with several recent announcements. The first is a new agreement between Bayer CropScience and South Dakota State University to bolster both organizations' wheat breeding efforts. Also exciting is the recent release of three new wheat varieties by the SDSU Agricultural Experiment Station – including spring wheat cultivars 'Advance' and 'Forefront' and the hard red winter wheat variety 'Ideal.'

These efforts are all aimed at helping achieve higher yielding and higher quality wheat crops for South Dakota farmers – and ultimately the wheat products that are delivered to consumers.

Building Partnerships

The Bayer CropScience agreement is a non-exclusive license that will give Bayer scientists access to a selection of SDSU's spring wheat germplasm. This will enable both parties to further improve their wheat breeding programs and to provide innovation and enhanced varieties for wheat growers in South Dakota and the surrounding region.

The Bayer-SDSU agreement is similar to agreements Bayer has penned recently with the University of Nebraska-Lincoln and Texas A&M.

Kevin Kephart, vice president for research at SDSU, calls these public-private partnerships a much needed step toward the future for the wheat industry.

Kephart explains that U.S. wheat production is dominated by varieties developed by breeding programs from the public sector – namely land-grant universities and USDA. This has precluded corporate entities from access to decades of wheat germplasm for research improvements. Additionally, because of the declining dollars being invested in public research over the past few decades, wheat research has not made the leaps and bounds in yield improvement and production efficiencies that corn and soybeans have with the help of corporate research investments.

Now, as Bayer CropScience works with SDSU, wheat – which is the second largest crop grown for direct human consumption behind rice – has an opportunity to advance with scientific technology. Kephart says, "We believe corporate interest in wheat represents the opportunity for significant development in wheat variety enhancements that will benefit South Dakota growers." Traits such as yield, drought tolerance, and water use may be improved upon with the future research.

And ultimately, Kephart points out that better wheat varieties bode well for addressing the needs of a growing world population related to food availability, global hunger and even political stability.

Going forward, the South Dakota Agricultural Experiment Station will play a critical role in the collaboration by conducting research, working with wheat farmers and commodity groups, suppliers and processors and others involved in production of spring wheat varieties. Additionally, SDSU will receive resources for advanced research in wheat breeding

"Assuming a new variety is popular enough to conservatively be grown on at least one-fifth of the acreage of winter wheat in South Dakota, and assuming the new variety demonstrates a 2 bu./acre yield advantage, at current prices, producers would realize about a \$3.6 million annual increase in revenue."

Bill Berzonsky

SDSU associate professor of winter wheat breeding



including the establishment of an endowed chair in wheat breeding and genetics.

Kephart notes that this new agreement evolved over the past 18 months with input and support from the South Dakota Wheat Commission, South Dakota Wheat Inc., and the South Dakota Crop Improvement Association. He also emphasizes that SDSU still owns the germplasm and that the agreement is non-exclusive.

The new spring wheat investment between SDSU and Bayer builds upon an ongoing winter wheat initiative between Bayer, SDSU and the U.S. wetlands and waterfowl conservation organization Ducks Unlimited. For that work – which is called Winter Cereals: Sustainability in Action initiative, or WCSIA, innovative plant-breeding techniques to produce doubled-haploid wheat plants are being used. This can shave as much as two years off the time needed to produce winter wheat varieties with desirable traits for farmers in the Prairie Pothole Region of North America.

Improved Varieties

Also making headlines in the wheat world is the release of the three new wheat varieties by the SDSU Agricultural Experiment Station in the past year. These include the spring wheat cultivars Advance and Forefront and the hard red winter wheat variety, Ideal.

Bill Berzonsky, associate professor of winter wheat breeding at SDSU, and Karl Glover, associate professor of spring wheat breeding at SDSU, say all three cultivars were selected for yield, disease resistance, standability, and end-use quality and have a lot to offer growers. The new winter wheat variety was named for Ideal, S.D., a

small farming community in central South Dakota where many acres of wheat are produced each year.

Berzonsky, who has more than 20 years of experience as a wheat breeder, explains that developing a new wheat variety is a long process – which he likens to a card game. He explains, "We shuffle the genetic deck and select the best traits to end up with the best hand possible."

The three new varieties have been released into the South Dakota Crop Improvement Association seed certification program, and are currently in foundation seed increase programs. They will ultimately be made available as certified seed through the efforts of the South Dakota Crop Improvement Association.

As an example of the improved traits offered by the new varieties, in regional trials Ideal was a top ranked variety in yield as well as disease resistance, reports Berzonsky of the variety's resistance to leaf and stem rust, tan spot and fusarium head blight. Along with good yield and disease resistance scores, testing showed Ideal expresses good milling and baking characteristics.

Glover reports similar trait improvements with the spring wheat varieties, and points out that Advance is also quite resistant to bacterial leaf streak, a disease that has recently appeared to be problematic in South Dakota.

Before a new variety can be released, a Variety Release Committee at SDSU scrutinizes its performance.

Berzonsky and Glover say the research and development would not be possible without the support of the South Dakota Wheat Commission through wheat checkoff dollars. "This support plays an important

role in the wheat breeding efforts of the South Dakota Agriculture Experiment Station," he emphasizes.

Economic Boost

The focus of these wheat breeding efforts by SDSU and its partners bodes well for the economic future of the state's agriculture industry.

"We are a public research organization here to serve the interests of agriculture and the food consuming public," says Daniel Scholl, director and associate dean, of the South Dakota Agricultural Experiment Station. "The value of having wheat breeding programs in our state is the fact that the varieties developed here are adapted specifically to the growing conditions here in South Dakota."

Berzonsky agrees, saying, "In the end, what we do here is about developing seed that will provide benefits to our state's growers and have a positive impact on their bottom line."

He cites an economic analysis done in Kansas that demonstrated for every dollar spent on variety development, the wheat producer earns about an additional \$12 in farm revenue.

Berzonsky concludes, "According to my calculations, assuming a new variety is popular enough to conservatively be grown on at least one-fifth of the acreage of winter wheat in South Dakota, and assuming the new variety demonstrates a 2 bu./acre yield advantage, at current prices, producers would realize about a \$3.6 million annual increase in revenue."

Editor's Note: South Dakota farmers plant more than 2.8 million acres of wheat annually.

HERE AND THERE

LIVESTOCK SKILL-A-THONS INTRODUCED TO YOUTH

SDSU Extension has begun offering a new program for youth involved in livestock projects. Called a skill-a-thon, the activity is designed to enhance youth's knowledge and skill of basic livestock management beyond the show ring.

Skill-a-thon participants complete four stations with hands on exercises related to nutrition, quality assurance, breeding and selection, carcass evaluation, meat identification and other industry topics.

A beef skill-a-thon was held at the Davison County Winter Beef Show in Mitchell on Dec. 29 and a livestockology contest – which is similar to the skill-a-thon format – was held at the Black Hills Stock Show in Rapid City on Feb. 4. More skill-a-thons are being planned in conjunction with various county 4-H activities this summer and as a new addition to the 2012 South Dakota State Fair 4-H Shows.

For more information about livestock skill-a-thons review the 4-H State Fair book or contact 4-H Youth Livestock Field Specialist, Megan Nielson at megan.nielson@sdstate.edu.



MARKETING WORKSHOPS PROVIDE RISK MANAGEMENT TOOLS

To achieve success marketing their commodities, today's agriculture producers need to consider the big picture, says Matthew Diersen, SDSU professor of economics. "Before taking advantage of high futures prices, farmers and ranchers need to look far ahead when managing risk. They must make prudent choices about the duration and scope of their risk management tools," Diersen states.

To help South Dakota producers do this, Diersen along with SDSU professor of economics Scott Fausti, and a team of SDSU Extension field specialists hosted several Far Ahead Marketing workshops throughout South Dakota in February and March.

Workshop topics include: incentives to market early, input cost risks, rolling futures strategies, and crop and livestock insurance considerations for 2012. Funding for the workshops was made possible through a USDA Risk Management Agency grant. Workshops were held in Winner, Lemmon, Aberdeen, Watertown, Sioux Falls, Mitchell, Pierre and Rapid City.



South Dakota Public Broadcasting is working with the Swiftel Center, SDSU Rodeo Club and Sutton Rodeos, Inc. to present the 58th Jackrabbit Stampede live on SDPB-TV. The two televised

WATCH THE JACKRABBIT STAMPEDE IN APRIL

rodeos will air live on SDPB2 on Friday, April 13 at 7 p.m. Central, and on Sunday, April 15 at 1 p.m. Central. Both programs will feature the top 10 contestants – "short go" – from each of the two rodeos presented at the stampede. The Jackrabbit Stampede will be held at the Swiftel Center in

Brookings and held in conjunction with Sutton Rodeos, Inc. and the SDSU Rodeo Club. SDPB2-TV is a sub-channel of South Dakota Public TV and is available over the air and on most cable systems in the state. SDPB's coverage will also be available online at SDPB.org/live.

FULL SLATE OF MEETINGS & EVENTS

A full schedule of activities – covering a variety of topic areas – were offered across the state in January and February. Here's a quick roundup of the highlights:

- > The 20th annual SDSU Lamb Bonanza was held Jan. 14 in conjunction with the men's and women's basketball games at Frost Arena on campus. Leg of lamb sandwiches were served by the South Dakota Sheep Growers' Association to showcase lamb and wool production in the state. At halftime of the men's game, six lamb pelts with SDSU logos were auctioned with proceeds providing scholarships in the Department of Animal Science and the Athletic Department.
- > Ranchers workshops were held Jan. 23 in Burke, S.D. and Jan. 24 in Mission, S.D. Topics covered included rangeland management, grass-fed beef, planning the transition between farm generations, herd health and a 2012 marketing update. SDSU Extension partnered with other local sponsors and were involved with presentations at both workshops.
- > Teaming up with the South Dakota Beef Industry Council, the South Dakota Department of Agriculture, and South Dakota Ag in the Classroom, SDSU Extension assisted in providing a variety of activities for all ages at the Black Hills Stock Show in Rapid City. A cattle handling and welfare practices workshop for producers was offered on Jan. 28. The popular BBQ Bootcamp was held for consumers attending the Stock Show on Jan. 29. And, a "Kids Take Stock in Science and Agriculture" program was offered for students attending the Stock Show with their school or parents Jan. 31 and Feb. 1.
- > The Southeast South Dakota Experiment Farm Corporation held their annual meeting Jan. 31 in Beresford. For the event, highlights included recent corn and soybean yield trial data along with information about an integrated crop and livestock project on the farm using forage sorghum and corn silages and an Animal Waste Management System designed by the USDA-NRCS. Additional feedlot, swine and crop data was also shared.
- > An environmental training session for operators of Concentrated Animal Feeding Operations, or CAFOs, was held Feb. 23 in Huron. Specialists from South Dakota State University, the South Dakota Department of Environment and Natural Resources, and the Natural Resources Conservation Service coordinated the training.

UPCOMING CAMPUS EVENTS

APRIL 15-17 – State FFA Convention

MAY 5 – 126th Annual Commencement

JUNE 4-8 – State 4-H Teen Leadership Conference



WEBINAR SERIES LAUNCHED TO INSPIRE YOUNG GARDENERS

would like to see youth step outside and embrace gardening," says Chris Zdorovtsov, SDSU Extension community development field specialist.

The webinars – which began in January – are offered online the last Wednesday of the month from 3:45 - 4:45 p.m. CST. Webinars are an hour long and feature two presentation topics running 15 to 20 minutes each

with about 20 minutes for a question and answer session within the learning community. Two webinars per month will be featured during the growing season. Upcoming webinars are scheduled for April 25, May 16, May 30, June 13 and June 27.

To join each webinar visit <http://igrow.org/events/category/gardens/>.

SDSU Extension has begun a Youth in the Garden Webinar Series. "These webinars are perfect for school teachers and afterschool and summer garden program leaders – essentially anyone who works with youth and



NEW ERA UNDERWAY

SDSU Extension Re-Energizes Programs, Delivery



Excitement, optimism and renewed commitment. Those are all words that describe the efforts by SDSU Extension as the new year unfolds.

Nearly 50 SDSU Extension field specialists are now stationed in eight Regional Extension Centers across the state. In their role, they are working to serve the needs of all South Dakotans by developing new program efforts and providing research and educational information for SDSU Extension's web portal iGrow. Regional Extension Centers are located in Aberdeen, Lemmon, Mitchell, Pierre, Rapid City, Sioux Falls, Watertown and Winner.

Additionally, 32 4-H Youth Program Advisors have been hired across the state with the responsibility of delivering youth programming for the specific counties they serve. Advisors will focus 100 percent on youth activities and may cover one to four counties depending on their contract.

The format is a new approach to Extension and 4-H in the state after budget cuts forced restructuring last year.

Of the changes, Barry Dunn, dean of SDSU's College of Agriculture and Biological Sciences, says, "The new SDSU Extension system is strong, and staffed with field specialists who will, for the first time, all be required to hold a Master's degree or earn one in five years. We will be able to deliver programs that South Dakota needs."

Signature Programs

The reorganization allowed SDSU Extension to reprioritize programs into capstone areas that focus on: 1) Competitive Livestock Systems, 2) Competitive Cropping Systems, 3) Food and Families, 4) Community and Youth and 5) Urban and Rural Initiatives.

Within these capstone areas, signature programs have been identified to prioritize efforts to address the current needs of South Dakota's people and communities. These include:

- Programs in Agriculture and Natural Resources will target audiences of beginning farmers and ranchers and small acreage owners with an integrated approach to livestock and crop production. Additional programs will focus on growing and improving

the state's overall livestock industry in areas such as backgrounding cattle, sheep flocks and cow/calf efficiency. Improving crop yields while maintaining long-term sustainability and integrated pest management are two emphases for crop production. The Growing Ag CEOs program is one example of the programming being developed to assist beginning farmers and ranchers.

- Signature Programs for 4-H and Youth will strive to ensure all South Dakota youth have the opportunity to be involved in 4-H and youth Extension programs.
- Signature Programs for Food and Families will aim to deliver programs to young people through the use of Virtual Labs, and will recruit the next generation of professionals in Science, Technology, Engineering & Math. Already, an online Virtual Lab that allows students to explore the food system and the scientific processes involved in creating a safe and abundant food supply has been developed. This work was done with a grant from the USDA National Institute of Food & Agriculture by SDSU Extension in cooperation with New Mexico State University and North Dakota State University.

INTRODUCING SOUTH DAKOTA'S 4-H YOUTH PROGRAM ADVISORS

4-H Youth Program Advisors are now in place across the state to coordinate youth programs within counties. Following is the staff listing:

Aurora, Buffalo, Jerauld and Sanborn Counties:
Audra Scheel
audrea.scheel@sdstate.edu

Beadle County:
John Madison
john.madison@sdstate.edu

Bennett County:
Beth Lyons
bennett.county@sdstate.edu

Bon Homme, Clay and Yankton Counties:
Will Kennedy
todd.kennedy@sdstate.edu

Brookings County:
Sonia Mack
sonia.mack@sdstate.edu

Brown County:
Becca Wolff
becca.wolff@sdstate.edu

Brule/Lyman County:
Advisor position pending

Butte and Lawrence Counties:
Elizabeth (Betsy) Burtzloff
elizabeth.burtzloff@sdstate.edu

Campbell, Edmunds, McPherson and Walworth Counties:
Jeff Mueller
jeffrey.mueller@sdstate.edu

Charles Mix and Douglas Counties:
Stephanie Chambliss
stephanie.chambliss@sdstate.edu

Cheyenne River, Corson, Dewey and Ziebach Counties:
Leah Holmes
leah.holmes@sdstate.edu
Second advisor position pending

Clark and Spink Counties:
Kim McGraw
kimberly.mcgraw@sdstate.edu

Codington County:
Jodi Loehrer
jodi.loehrer@sdstate.edu

Custer and Fall River Counties:
Bradley Keizer
bradley.keizer@sdstate.edu

Davison and Hanson Counties:
Alice Nickelson
alice.nickelson@sdstate.edu

Day and Marshall Counties:
Jennifer Ringkob
jennifer.ringkob@sdstate.edu

Deuel and Grant Counties:
John Keimig
john.keimig@sdstate.edu

Faulk, Hand, Hyde and Potter Counties:
Falyn Hogg
falyn.hogg@sdstate.edu

Gregory and Tripp Counties:
Megan Peterson
megan.peterson@sdstate.edu

Haakon, Jackson, Jones and Mellette Counties:
Carrie Weller
carrie.weller@sdstate.edu

Hamlin and Kingsbury Counties:
Aren Field
aren.field@sdstate.edu

Harding and Perkins Counties:
Ida Schmidt
ida.schmidt@sdstate.edu

Hughes, Stanley and Sully Counties:
Mark Rowen
mark.rowen@sdstate.edu

Hutchinson and Turner Counties:
Deanna Gall
deanna.gall@sdstate.edu

Lake and Moody Counties:
Amanda Stade
amanda.stade@sdstate.edu

Lincoln County:
Amber Lounsbery
amber.lounsbery@sdstate.edu

McCook County:
Alicia Reif
alicia.reif@sdstate.edu

Meade County:
Jennifer Voigt
jennifer.voigt@sdstate.edu

Miner County:
Maria Feldhaus
maria.feldhaus@sdstate.edu

Minnehaha County:
Eric Saathoff
eric.saathoff@sdstate.edu and
Kaycee McDaniel
kaycee.mcdaniel@sdstate.edu

Pennington County:
Tiffany Meyer
tiffany.meyer@sdstate.edu

Roberts County:
Tracey Lehrke
tracey.lehrke@sdstate.edu

Union County:
Rachel Bonine
rachel.bonine@sdstate.edu

Pine Ridge Reservation:
Advisor position pending*

Rosebud Reservation:
Kathi Her Many Horses*
kathi.hermanyhorses@sdstate.edu

*Funded through federal sources

- Signature Programs for Community Development include continuation of the successful Horizons program, which assists communities that want to strengthen their economy and quality of life. Since 2004, more than 40 rural communities in South Dakota have completed an in-depth community development program aimed at reducing poverty by building community leadership, says David Olson, SDSU Extension Community Development Program Director.

- Signature Programs for the Native American Community include a focus on healthy food and healthy children. In an effort to help individuals living on Reservations provide nutritious foods for their family and community, training that focuses on raising their own food and livestock will be offered. Examples include expanding the reach of the Lakota Beginning Farmer/Rancher Training Program which began on the Pine Ridge Reservation and trained students in all aspects of food and livestock production, as well as business management.

"Each of these Signature Programs allow the specialists within Extension's capstone areas to concentrate their time, energy and resources on significant efforts that have the greatest impact on the producers and communities we serve... Helping them become more competitive in today's economy and marketplace," Dunn explains.

Along with these programs, Dunn says that South Dakotans can continue to rely on SDSU Extension to provide the traditional education, information, resources and services they have come to depend upon through new, easy to access avenues like AnswerLine and the web portal iGrow.

Editor's Note: Pages 16-20 feature more examples of the new SDSU Extension programs and iGrow efforts being initiated. For a listing of the Extension field specialists in the eight Regional Extension Centers across the state visit www.iGrow.org.



CONTINUES TO GROW

A variety of new content – and a statewide iGrow radio network – are both helping expand the information and knowledge shared via SDSU Extension's iGrow.org efforts. The site presently features timely news and event information as well as topic specific content in the following categories: Livestock, Agronomy, Healthy Families, Community Development, 4-H & Youth, and Gardens.

As a result, the website now boasts more than 23,000 regular visitors, and 12 major radio stations across the state feature iGrow information. Here's a roundup of the most recent iGrow updates:



➤ Sanford Partnership Helps Provide Healthy Lifestyle Information

Sanford Health has partnered with SDSU Extension to provide content featured on the iGrow Healthy Family site. Mike Daly, director of Public Affairs for Sanford Health explains that the partnership makes sense because SDSU Extension and Sanford Health's Sioux Falls Region Health Network serve people in almost exactly the same regional footprint covering South Dakota, southwest Minnesota, northwest Iowa and northern Nebraska.

Daly says, "Both organizations have a vested interest in the health and healing of the people we serve. People in these rural areas, regardless of state, can benefit from the information and resources provided by iGrow."

An example of content that can be accessed through the Healthy Families site on iGrow is Sanford Health's "fit" initiative. The initiative is a partnership between Sanford Health, WebMD,

Disney, Sesame Street and others. The initiative is a multi-platform approach to combating obesity in children. The online platform, which can be accessed through the Health Family site on iGrow, provides information focused on establishing healthy lifestyles that are conducive to obesity prevention: nutritional fitness, physical fitness, behavioral fitness and mental fitness.

Daly says feedback from people in the region related to content on iGrow and Sanford Health's involvement on the project has been positive. He concludes, "Sanford Health believes that community involvement and support is essential to success; when organizations like SDSU and Sanford Health can collaborate in support of projects that promote a healthy economy and healthier people, we all win."

➤ Soybean Variety Performance Results Featured

Results from South Dakota State University's 2011 Soybean Variety Performance Trials are featured on www.iGrow.org under the Agronomy button. The data represents seed from about 25 companies throughout the Upper Midwest that participated in soybean trials in six research test plots across South Dakota.

This year trials focused on Maturity Group (MG) 0 and MG 1 were planted in Warner, South Shore, Bancroft and Brookings. MG 1 and MG 2 trials were planted in Bancroft, Brookings, Geddes and Beresford. Data from the trials focuses on yield, plot lodging scores, as well as protein and oil content.

➤ iGrow Radio Network Launched

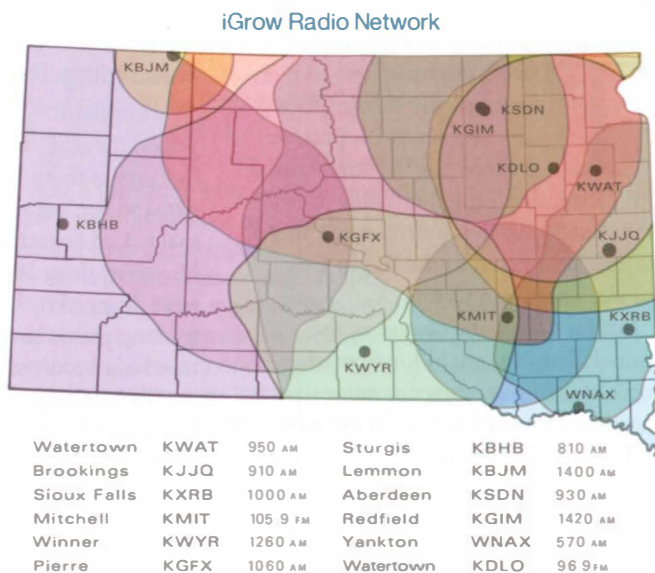
SDSU Extension formally launched the iGrow Radio Network in early December as a companion service to iGrow.org. Both efforts are focused on helping South Dakotans connect to SDSU Extension.

The iGrow Radio Network features a daily 3-minute segment that can be heard on 12 major radio stations across the state and region. Each segment is hosted by Pam Geppert who interviews Extension Field Specialists and State Specialists on a variety of topics ranging from agronomy and weather, to livestock production and rural life. Programs are drawn from the credible and accurate information on iGrow.org.

On Mondays, iGrow Radio features a weekly cattle and corn market outlook and commentary with economist Darrell Mark. Mark, who joined the SDSU Extension team in January, is also a regular contributor to SDSU Extension's iGrow web site.

In addition to market analysis for iGrow, Mark is a third-generation farmer who farms with his family in southeast South Dakota. Because he has a vested interest in what the markets are doing, Mark says his work as an economist means much more than numbers to him.

"I try to analyze the regional, national and international market situation as it applies to livestock and grain markets because it impacts every farm and ranch in South Dakota – including my own."



He adds, "With today's highly volatile markets, being able to quickly and easily obtain information and make marketing decisions while on the job is more important than ever."

To view the program schedule and listen to archived programs visit iGrow.org and click on the iGrow Radio Network icon.

➤ iGrow Horses Added In February

The "Livestock" category on iGrow already included Beef and Pork, and in February iGrow Horses was added to provide up-to-date news and information about the equine industry. Topics covered include horse health and production; equine events; emerging equine issues; and news from the SDSU Equine Program.

A "Small Acreage" tab is also part of the iGrow Horses information to help address natural resource management, goal setting, facility design and common acreage practice how to's.

For more information about iGrow Horses contact SDSU Extension Equine Specialist, Rebecca Bott, at 605-688-5412 or rebecca.bott@sdstate.edu.



➤ Coming Soon: Mobile Apps for Smart Crop Production

What's next on iGrow? SDSU Extension, Plant Science Department, and Office of Web Development are collaborating to develop mobile apps designed to assist

farmers and production agronomist make informed production decisions, reports Kurt Reitsma, SDSU Extension Precision Agriculture Field Specialist.

Reitsma anticipates the first apps to be available by spring of 2012 and will be distributed via iGrow.org. The apps will be compatible with both Android and Apple iPhone operating systems.

Once released, Reitsma says workshops hosted by SDSU Extension will demonstrate how these apps work and how they can help farmers and agronomists improve production by using them to their fullest potential.

FOCUSED ON THE FUTURE

Field Specialists Strive To Serve Changing Landowner Needs

“There’s opportunity in change,” says Dave Ollila, as he expresses his positive outlook for the restructured SDSU Extension program. Ollila joined SDSU Extension in November as a sheep field specialist based in the Rapid City Regional Extension Center.

But for Ollila, the change is also personal. The Newell, SD, native left a successful 25-year career as an ag education/FFA teacher to join the new SDSU Extension effort.

A sheep and cattle rancher himself, Ollila believes in the programs and services Extension offers and says his new position allows him to come full circle by working with many of his former students who are now farmers and ranchers.

Noting that the average age of many South Dakota ranchers is 60 to 70 – and that a new generation is eager to start their farming or ranching ventures, Ollila is aiming to help build mentor relationships between the generations. Specifically, he’s focusing on helping rebuild South Dakota’s sheep industry through this approach.

Rebuilding The Sheep Industry

Ollila explains, “With record high sheep prices, the interest in regrowing the sheep industry is there.” Additionally, consumer demand for lamb is growing. Both factors make it an attractive market for producers. However, since 1990 U.S. sheep numbers have dropped by half and lamb feedlots and packing plants have disappeared; a similar trend has occurred in South Dakota.

To help beginning producers with less than 15 years of sheep production experience enter and expand within the industry – while also enhancing their knowledge and skills – SDSU Extension is teaming with the South Dakota Sheep Grower’s Association and the American Sheep Industry (ASI) to initiate a sheepSD program. ASI recently pledged \$20,000 in seed money to the effort.

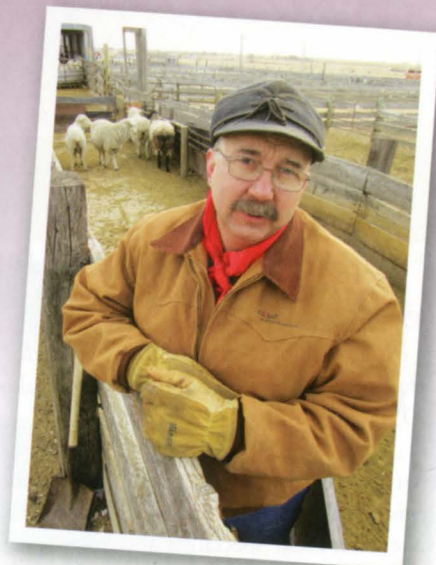
Patterned after the beefSD program, sheepSD will be a three-year program focused on helping beginning sheep producers improve the management and financial performance of their sheep enterprise. This will include “hands on” instruction, web-based learning, mentoring

from established ranchers, and case study visits to successful sheep operations in the region. Participants will also address lamb marketing and consumer education as well.

Presently, learning communities in three locations in northwestern South Dakota will be established for the sheepSD program because that is where most of the state’s sheep production is concentrated. But, over time the program may be expanded statewide.

Ollila says his long term vision is for sheepSD to become a self-perpetuating program that develops industry leaders who recruit others to get involved as well.

For more information about sheepSD, contact Dave Ollila at (605) 394-1722 or david.ollila@sdsu.edu.



WORKING WITH SMALL ACREAGE OWNERS

Small acreage landowners have become a big part of the landscape in South Dakota over the past couple decades. To assist them with their land management needs, SDSU Extension now includes a field specialist position whose time is 100% dedicated to small acreages.

Mindy Hubert in the Rapid City Regional Extension Center currently holds the Small Acreage Field Specialist title, and on any given day she’ll provide information to individuals on horses or goats to weeds and fencing.

Hubert explains that many acreage owners today grew up in town – and still work in town. She says about half of acreage landowners are young families

and half are retirees; but few are familiar with Extension.

Thus she says technology – such as the iGrow website and Facebook – is an effective resource for Extension to provide information to these individuals and assist them with their land management issues. She also regularly hosts workshops for small acreage owners.

Realtors are another segment that SDSU Extension has been able to help educate through its small acreage efforts. Hubert explains that a training program on proper stocking rates, web soil survey, weeds and other land management topics has been developed by SDSU

GROWING AG CEOS PROGRAM LAUNCHED

AG CEO

Among the new efforts by SDSU Extension is a recently developed program called Growing Ag CEOs. The program is focused on connecting new farm and ranch producers with seasoned and successful producers, agriculture leaders and the knowledge and research base found within the University system.

Rosie Nold, Ag and Natural Resources Program Director for SDSU Extension, explains, "South Dakota agriculture producers are experts in maximizing yields and raising superior livestock. However, as the average age of the South Dakota producer continues to increase, we're at risk of losing their knowledge, experience and expertise. Meanwhile, the number of younger producers eager to fill their shoes is not only dramatically low, but in need of additional skills required to operate in today's business climate."

Census of Agriculture data shows the number of agriculture producers between the ages of 35 and 45 decreased by 40% between 2002 and 2007.

Although the next generation of agriculture producers is well educated – holding degrees in animal science, agronomy, production agriculture or agriculture technology, many young producers lack experience in the business aspect of production agriculture.

"New producers need the opportunity to learn from the mistakes of others without having to experience them. Overcoming production or financial mistakes is not easily done in today's economy where there is simply too much on the line," Nold says.

SDSU Extension anticipates Growing Ag CEOs will provide a format to help young producers do this. "Within these communities we encourage successful farmers and ranchers to provide insights into the big picture of the farm or ranch business," says Nold.

To launch Growing Ag CEOs, SDSU Extension hosted a series of producer workshops throughout the state in February and March. During the four-part series, Extension staff led instruction on specific topics, but the program also provided the opportunity for participants to work with mentors and area ag leaders in a learning community approach.

For more information about Growing Ag CEOs visit igrow.org.



Extension and approved by the South Dakota Realtors Commission.

Realtors who complete the course receive continuing education credits from the Commission. Already 40 realtors have completed the training, and SDSU Extension is developing a second, more advanced training. Those who complete both trainings will receive a special designation from SDSU as an Advisor for Country Real Estate (ACRE).

Opportunity for Collaboration

Both Hubert and sheep field specialist Dave Ollila agree that the Regional Extension Center format allows for addressing today's changing landowner needs.

As an example, Hubert shares that many of the small acreage owners she works with are interested in raising sheep, goats or horses. With SDSU Extension's team of field specialists close at hand, they can easily help landowners network with a species-specific livestock specialist or a grazing management expert.

Hubert points out that agriculture in South Dakota looks very different from the way it did 20 years ago. And as the industry – and landowners' needs and interests – continue to change in the future SDSU Extension will evolve to address those needs.

Regarding small acreage owners, she says, "Collectively the impact of small acreages on the environment and

rural communities is significant. Acreage owners are a newer audience for SDSU Extension, and they are eager to learn all they can about land and livestock management. It's rewarding to work with them."

In the end, all of South Dakota benefits because the resources are being managed and cared for with stewardship and sustainability in mind.

For more about SDSU Extension's small acreage programs, contact Mindy Hubert at (605)394-1722 or mindy.hubert@sdstate.edu.

CONNECTING WITH COMMUNITIES

SDSU Extension Facilitates Brainstorming and Business Planning

Sharing ideas and brainstorming strategies for a better future is key to helping communities develop their full potential. How is SDSU Extension helping facilitate those discussions? Read on to learn more.

Can a book change a community?

For fourteen South Dakota communities participating in "The Great Community Book Read" has helped facilitate discussions about those communities' future.

To participate, community members commit to reading and discussing the book, *Hollowing Out the Middle: The Rural Brain Drain and What it Means for America* by Patrick J. Carr and Maria J. Kefalas. It is a study of graduates of a small town high school. The authors identify four types of graduates:

- The Achievers - those who are programmed to leave the community;
- The Seekers - those who want to see the world and get out of town;
- The Stayers - those who remain, don't participate in any postsecondary education, and have limited employment opportunities;

- The Returners - those who earn postsecondary education, develop careers and return to raise a family.

Book discussions facilitated by SDSU Extension Community Development field specialists then assist communities in examining the use of their educational resources and the consequences of those decisions. Participants discuss the categories and then brainstorm strategies for taking action to make their communities more attractive to the categories of graduates.

Fourteen South Dakota communities have participated in the community book read so far. Some of their action steps include:

- Armour – organizing a second book read for school board members and school administrators;
- De Smet – creating an organization that supports and attracts the interests of Returners and developing incentives and resources for entrepreneurs;
- Gregory – creating scholarships for technical education and bringing technical training to town for Stayers;
- Iroquois – starting a community newsletter and developing a skills and interest inventory of the residents;
- Montrose – developing marketing materials that focus on the Returners;
- Scotland – holding a meeting with Stayers to determine their interests in the community;
- Tripp – exploring a mentoring program;
- Volga – creating a community Facebook page, organizing a book club and developing a community garden;
- Wagner – organizing a monthly book club to hold discussions of nonfiction, community issue based books, and opening a high school skills lab for adult Stayers;
- Webster – working with existing event planners to add activities that interest Returners.

For more information about the Great Community Book Read discussions or to schedule one, contact SDSU Extension's Dave Olson at (605)688-5614.

GIVING NEW BUSINESS OWNERS A SOLID START, or improving and updating a plan for existing businesses is also a goal of the SDSU Extension Community Development team. "Small businesses are vital to our rural economy. We want our entrepreneurs and small businesses to get comfortable doing business planning because it can help ensure their long-term success," says Kelly Roseland SDSU Extension Community Development Coordinator.

The SDSU Extension team has developed a series of classes for communities focused on the topic "Small Business Beginnings." Throughout the classes, participants have the opportunity to work on developing or updating a business plan for themselves with SDSU Extension staff offering personalized input on each plan.

The DeSmet Development Corporation hosted the five week workshop series in March. For more information about bringing the series to your community, contact kelly.roseland@sdstate.edu or call (605)852-2633.

THE HORIZONS COMMUNITY DEVELOPMENT PROGRAM through SDSU Extension is also being continued in 2012. Horizons offers rural South Dakota communities a chance to take action in building a strong leadership base to address difficult issues such as poverty, economic decline and youth leaving the area.

The two-year program is available for communities with less than 10,000 people. It is designed for communities ready to commit to gathering citizens and working toward positive change. Selected communities work with a "coach" who is on staff with SDSU Extension Community Development. *For information, contact kari.fruechte@sdstate.edu or call (605)685-6972.*

GOT GRAIN?

DON'T LOSE 40% OF IT TO TAXES.



Nobody looks forward to taxes. And if you have a bumper crop of grain, you may be paying in 40% or more of your profits.

The South Dakota State University Foundation suggests an alternative for grain producers: a Green Trust.

By investing in a Green Trust, you'll take advantage of tax breaks, like avoiding income tax and self-employment tax (this is where you can save that 40% you normally pay in).

You will receive a generous income from the Trust, which means you'll get all your money back and be able to take advantage of the current

high grain prices. (Livestock and farm machinery gifts can also be used to fund a Green Trust. Ask us how.)

Still not convinced? Even after you've received your initial Trust value back in payouts, there will be money left in your Green Trust to make a charitable gift to SDSU, perhaps in the form of a permanent scholarship in your family's name to benefit an SDSU student.

It's a win-win, for you and for SDSU.

To learn more about a Green Trust through the SDSU Foundation, call toll-free at 888-747-7378 or log onto sdsufoundation.org/GreenTrust



☐ Send me an illustration of a Green Trust

☐ Call me with more information

NAME _____

ADDRESS _____

PHONE _____

MAIL TO: SDSU Foundation, 815 Medary Ave., Box 525, Brookings, SD 57007